



FOREST SERVICE MANUAL INTERMOUNTAIN REGION (REGION 4) OGDEN, UT

FSM 2000 – NATIONAL FOREST RESOURCE MANAGEMENT

CHAPTER 2080 – NOXIOUS WEED MANAGEMENT

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New Document(s):	2080	10 Pages
Superseded Document(s): (Last supplement was 2000-97-1 to 2080.)	2080 (Supplement 2000-97-1)	3 Pages

Digest:

2080.5	Adds Noxious Weed definitions for infested, gross, treated acres, and biological releases.
2081.2	Removes priorities that are now listed in parent text. Adds Noxious Weed prevention and mitigation measures.

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2080.5 - DEFINITIONS

Biocontrol Release. The dispersal or release of biocontrol agents on a noxious weed infestation (see definition of infested acre), with the intent of establishing a population of a biological control agents. An agent can be an insect, fungus, bacterium, or any other life form that preys on the weed of concern. The release of agents can occur at a single location or scattered over a site. The release can be a few individuals, a container of many individuals, or several containers with thousands of individual agents. Releases at different locations, with the intent of establishing separate populations (at least 1/4 mile apart), constitute separate releases. Release of two species of biological control agents, at the same location, in the same year, is a single release.

Gross Area. An area of land occupied by one or more noxious weed species. The area is defined by drawing a line around the general perimeter of the infestation, not the canopy cover of the plants. The gross area may contain significant parcels of land that are not occupied by weeds.

Infested Acre. (Occupied Area, Net Area). A contiguous area of land occupied by one or more weed species. The infested area is defined by drawing a line around the actual perimeter of area occupied by the canopy of the weed plants.

Treated Acre. An infested area (see definition of infested acre) where weeds have been treated or retreated by an acceptable method (chemical, biological, mechanical, cultural, manual) for the specific objective of controlling their spread and/or reducing their density (generally reported in increments of not less than 0.1 acre for chemical and mechanical treatment).

2081.2 - Prevention and Control Measures

1. Recommended Practices. Stop the spread of existing noxious weeds and prevent invasion of new sites or new noxious weeds by applying prevention and control mitigation measures where applicable and appropriate. Potential practices to consider:

- a. Project Design and NEPA. Incorporate noxious weed prevention into all project layout, design, and alternative evaluation.

Environmental analyses should consider noxious weed risk in evaluating project location and design, and in the development of alternatives and mitigating measures, including any or all of the following, as determined to be appropriate by the Forest Officer in charge:

- (1) The presence of existing noxious weeds within the project site by species and magnitude.

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- (2) The susceptibility of the habitat type to noxious weed invasion.
 - (3) The risk for invasion or spread of noxious weeds that could be caused by the project.
 - (4) The evaluation of alternative sites, which are noxious weed-free and/or low risk, for project implementation.
 - (5) The evaluation of alternative implementation methods where they exist, which would reduce risk of invasion or spread of noxious weeds.
 - (6) The inclusion of other mitigation measures (practices) designed to minimize risk of invasion or spread of noxious weeds.
 - (7) The evaluation of direct, indirect, and cumulative effects of the project to noxious weed species and populations.
- b. Ground Disturbing Activities. Project implementation for ground-disturbing operations within noxious weed infested areas, as deemed appropriate, should include provisions for monitoring and inspecting as determined through the analysis process.
- (1) Comply with mitigation measures for ground disturbing operations within noxious weed infested areas which are generally recommended by the Forest or District Weed Management Specialist and approved by the responsible Forest Officer.
 - (2) Select noxious weed-free project construction staging areas.
 - (3) Maintain as much microhabitat for desirable vegetation as feasible in areas that will have ground disturbance to help suppress noxious weeds. Minimize the removal of trees and other roadside vegetation during construction, reconstruction, and maintenance, particularly on southerly aspects, except when removal is required for public safety.
 - (4) Re-establish vegetation (native where practical) on bare ground caused by ground-disturbing activities to minimize noxious weed spread. Guidelines to consider include:
 - (a) Revegetate disturbed soil in a manner that optimizes plant establishment for that specific site, unless ongoing disturbance at the site will prevent noxious weed establishment or spread. Monitor and re-treat as needed until site is successfully revegetated according to project standards.

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Exceptions to this mitigation measure should require monitoring and treatment of invading noxious weeds. Exceptions include:

Grading and blading of travel ways, borrow ditches, rights-of-way, and drainage ways on system roads that are routinely maintained.

Areas where management objectives would be adversely affected by seeding grass species, that is: reforestation plantations.

(b) Weed seed free topsoil should be stockpiled and replaced on disturbed areas such as road embankments, cuts, fills, and shoulders; gravel pits; skid trails; landings; staging areas; and so forth, where practical.

(c) Replant as soon as practical after the disturbance activity to take advantage of the seedbed and to establish desirable species before the arrival of invading noxious weeds. Use local seeding recommendations. To avoid weed contaminated seed, each lot shall be tested by a certified seed laboratory against the State Noxious Weed List and documentation of seed inspection test provided for.

(d) Use local seeding guidelines for detailed procedures and appropriate mixes. If the risk for invasion by noxious weeds is high, use aggressive, early season species. If the risk is low, use a more diverse mixture of native species that may take longer to establish. Include natives, pioneer species, and/or nurse crops. Select for low nutrient demanding species to reduce the need for fertilization. Monitor seeded sites. Spot re-seed as needed.

(5) Restoration practices for disturbed areas should be based on local prescriptions.

(6) Use certified weed-seed free straw and mulch on road stabilization and erosion control projects.

(7) Eliminate the movement of existing and new noxious weed species caused by moving infested gravel and fill material.

(a) Consider the potential for moving noxious weeds when establishing new material sources on sites where noxious weeds are present, and take necessary corrective action.

(b) Active gravel and borrow sources should be inspected and determined to be noxious weed free before use. A source supporting noxious weeds should be considered for closure until it is weed free.

c. Roads and Road Work. Minimize roadside sources of noxious weed seed that could be transported to other areas, and maximize effectiveness of weed control.

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- (1) Ranger District noxious weed prevention and control programs should include a monitoring plan for annual inspection of system roads and rights-of-way for invasion of noxious weeds. If noxious weeds become established, inventory and schedule for treatment.
- (2) Schedule and coordinate blading or pulling of noxious weed-infested roadsides or ditches with the Forest or District Weed Management Specialist to ensure that appropriate mitigation measures are applied. Coordinate with a weed management specialist before blading or pulling roadsides and ditches infested with noxious weeds that are on the routine maintenance schedule.
- (3) When necessary to blade noxious weed infested roadsides or ditches, schedule work for spring or early summer prior to the seed-set stage or later in the fall after seeds have fallen. Minimize surface disturbance and isolate bladed material to the infested site. (Also see item b. Ground Disturbing Activities above).
- d. Reclamation/Restoration. Reduce noxious weed establishment in obliteration/reclamation projects. Treat noxious weeds in obliteration and reclamation projects before roads are made undriveable. Monitor and retreat as necessary. (Also see item b. Ground Disturbing Activities above).
- e. Public Use. Minimize transport and establishment of noxious weeds on National Forest System lands by considering these preventive measures:
 - (1) Treat noxious weeds at trailheads, boat launches, outfitter and public campsites, airstrips, and roads leading to trailheads.
 - (2) Close infestations of noxious weeds to camping until noxious weeds have been eradicated.
 - (3) Inspect campgrounds, trailheads, and similar areas that are open to public vehicle use and consider as high-risk areas. Inspected annually for invasion of noxious weeds. Include established infestations in strategies for eradication.
 - (4) Remove seed sources that could be picked up by passing vehicles to limit seed transport. (Also see item b. Ground Disturbing Activities above).
- f. Noxious weed awareness and prevention efforts.
 - (1) Use education programs to increase noxious weed awareness and prevent noxious weed spread by Forest users.
 - (2) Post and enforce the statewide Noxious Weed Hay, Straw, and Mulch Closure Order.

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(3) Post pictures and descriptions of noxious weeds at National Forest System trailheads and at roadsides in noxious weed areas to inform recreationists of noxious weed presence and dangers of spreading.

(4) Post prevention practices at National Forest System trailheads and at roadsides in noxious weed areas. Recommended prevention practices include:

(a) Pack and saddle stock should be fed only weed-seed free feed for several days prior to traveling off roads in the Forest and should be brushed to remove any noxious weed seed.

(b) Stock should be tied and held in the backcountry in such a way as to minimize soil disturbance and avoid loss of native/desirable vegetation.

(c) Motorized trail users should inspect and clean their vehicles of noxious weeds and their seeds prior to using National Forest System lands.

(5) Post notices in publicly accessible noxious weed treatment areas where and when there is a likelihood of contact with herbicide-treated- vegetation.

g. Archeological Excavations. Reduce noxious weed establishment and spread at archeological excavations. Archeological excavation areas are considered as high-risk ground disturbing areas and should be inspected for invasion of noxious weeds. If noxious weeds become established, they should be inventoried and scheduled for treatment. (Also see item b. Ground Disturbing Activities above).

h. Wildlife and Fisheries. Ensure noxious weed prevention and control are considered in management of wildlife and fisheries. Forest noxious weed prevention and control programs should include a monitoring plan for inventory and annual inspection of areas where wildlife concentrate in the winter and spring, which results in overuse and/or soil scarification. Inventory and schedule for treatment noxious weeds when found. (Also see item b. Ground Disturbing Activities above).

i. Domestic Grazing Activities. Ensure noxious weed prevention and control are considered in management of all grazing allotments. Consider the following:

(1) Annual Operating Instructions for every grazing allotment should include noxious weed prevention monitoring and reporting direction, and provisions for annual inspection of areas where livestock concentrate, which results in overuse and/or soil scarification. If noxious weeds become established, they should be inventoried and scheduled for treatment.

(2) For each grazing allotment containing noxious weed infestations, include direction in the Annual Operating Instructions (AOI) for prevention and control of

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noxious weeds. Items to be addressed in the AOI might include: season of use, exclusion, minimizing ground disturbance, noxious weed seed transportation, maintaining healthy vegetation, control methods, revegetation, monitoring, reporting, and education.

Include ways to minimize ground disturbance and bare soil caused by livestock operations (for example: salt licks, watering sites, yarding/loafing areas, corrals, and other heavy use areas) in Allotment Management Plans (AMPs) and/or Annual Operating Instructions.

Minimize transport of noxious weed seed into and within allotments by considering the following:

(a) Avoid driving, walking, riding, and/or herding through noxious weed infestations.

(b) Entry units grazed by livestock transported onto the Forest from noxious weed-infested areas should be inspected annually for new noxious weeds. If noxious weeds become established, they should be inventoried and scheduled for treatment.

(5) Maintain healthy desirable vegetation that is resistant to noxious weed establishment by considering the following:

(a) Manage forage utilization to maintain the vigor of desirable plant species as described in the Allotment Management Plan.

(b) Minimize and/or exclude grazing on restoration areas until vegetation is well established.

(6) Promote noxious weed awareness and prevention efforts among livestock permittees by considering the following:

(a) Use education programs and/or Annual Operating Instruction direction to increase noxious weed awareness and prevent noxious weed spread by permittees' livestock and/or management activities.

(b) Encourage permittees who are certified herbicide applicators to participate in allotment and Cooperative Weed Management Area noxious weed control programs. (Also see item b. Ground Disturbing Activities above).

j. Forest Management. Minimize the creation of sites suitable for noxious weed establishment during timber harvest by considering the following:

(1) Avoid driving, walking, skidding, landing, and/or hauling through noxious weeds.

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(2) Minimize soil disturbance during forest management operations by considering winter skidding; broadcast burning over pile burning; smaller slash piles and burning under conditions that minimize heat transfer to the soil; minimizing fire line construction; seeding skid trails, landings, and other disturbed sites.

(3) Monitor for noxious weeds after sale activity and treat noxious weeds as needed.

(4) Where logging activity on planned or existing timber sales may contribute to the encroachment of noxious weeds, use Sale Area Improvement and K-V collections to control or prevent the encroachment of noxious weeds within sale areas as provided for in FSM 2477. Enter planned expenditure of K-V funds for noxious weed control on Development and Budget System Plan. (Also see item b. Ground Disturbing Activities above).

k. Mining, Mineral, Oil and Gas. Minimize noxious weed establishment in mining operations and reclamation by considering the following:

(1) Retain sufficient bonding until an appropriate percent of the potential vegetation ground cover, as determined by the responsible Forest Officer, for the site is reestablished.

(2) Mining and mineral exploration areas are considered as high-risk areas and should be inspected for invasion of noxious weeds. If noxious weeds become established, they should be inventoried and scheduled for treatment. (Also see item b. Ground Disturbing Activities above).

l. Soil and Watershed Improvement. Integrate noxious weed prevention and management in all soil and watershed, and stream restoration projects. Forest noxious weed prevention and control programs should include a monitoring plan for early detection of noxious weed spread or establishment in riparian areas, particularly from existing infestations and previously eradicated sites. New infestations should be treated for eradication before they become well established. (Also see item b. Ground Disturbing Activities above).

m. Special Use Permits and Easements. Reduce noxious weed establishment and spread in special use permits and easements by considering the following:

(1) Holders of special use permits and easements are responsible for the prevention and control of noxious weeds on the area authorized when prescribed by the Forest Service.

(2) Require noxious weed prevention and control requirements in Operating and Maintenance Plans when authorized activities present a high risk for invasion by

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noxious weeds or the location of the activity is vulnerable to invasion by noxious weeds.

n. Wildfire and Prescribed Fire Operations. Mitigate and reduce noxious weed spread during wildfire and prescribed fire operations by considering the following:

- (1) Increase noxious weed awareness among fire personnel. Include noxious weed risk factors and noxious weed prevention considerations in the Resource Coordinator duties on Incident Overhead Teams and Fire Rehabilitation Teams.
- (2) Where practical and timely, establish fire camps, vehicle and crew staging areas, helibases, helispots, cargo and net loading areas, and airstrips in noxious weed-free areas.
- (3) Assign a local Weed Specialist Resource Advisor to the Incident Command Team when the wildfire or control operation occurs in or near a noxious weed area.
- (4) When noxious weed infested areas are used for fire operations, implement appropriate mitigation measures, as determined by the Weed Specialist Resource Advisor. Identify high-risk noxious weed infestations in areas of fire operations, and avoid when possible.
- (5) All vehicles sent off Forest for fire assistance in noxious weed areas should be cleaned before returning to home units.
- (6) Emphasize Minimal Impact Suppression Tactics (MIST) to reduce soil and vegetation disturbance. Minimize fire and dozer line.
- (7) Avoid or minimize all types of travel through noxious weed areas.
- (8) Avoid ignition and burning in noxious weed areas, unless it is part of a noxious weed control strategy.
- (9) Avoid ignition and burning in areas with a high risk for invasion of noxious weeds.
- (10) Unplanned burning of noxious weed areas might require post treatment of noxious weed infestations.
- (11) Utilize noxious weed-free helibases and helispots for aerial ignition projects.
- (12) Minimize fireline and soil disturbance and:
 - (a) Encourage desirable vegetation during fire rehabilitation activities.

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- (b) Seed the entire burn, all cat lines, and severely disturbed areas when there is a high risk of noxious weed spread or invasion, and such action is recommended by the local Weed Specialist Resource Advisor and approved by the Responsible Forest Officer. Hand seed catlines and severely disturbed areas.
- (c) Prioritize treatment of noxious weeds on fire access roads as part of rehabilitation plan to reduce noxious weed spread into burned areas.
- (13) Apply for restoration funding for noxious weed infestations as determined by Burned Area Rehabilitation teams. (Also see item b. Ground Disturbing Activities above).
 - o. Noxious Weed Program Continuity. Ensure continuity in noxious weed management programs. Each Forest should have access to a Weed Specialist who is trained and proficient in noxious weed management.
- 2. Closure Orders. Product certification shall be accepted from any State Department of Agriculture, County Agriculture Officer, or their authorized agents, on National Forest System lands for the certified hay, feed, straw, and mulch closure orders. Pelletized feed does not fall under the hay products closure orders.

2083 - INFORMATION COLLECTION AND REPORTING

Inventory noxious weeds and plot their location on a map(s). Update the inventory as needed. Coordinate information with local/county weed boards. Inventory information can be supplemental to post-treatment evaluation as described in FSM 2155.1. The inventory and summary shall be by weed species and acreage infested. Do not duplicate the acreage count where more than one weed species occurs on the same site.